

Cognition and General Knowledge

Introduction

During the first few years of life, remarkable changes occur in children's cognitive abilities. Cognitive development evolves rapidly as children explore and learn about their physical and social worlds. Skills in logic, reasoning, observation, imagination, and problem-solving are continually employed as children acquire greater knowledge and understanding about basic concepts, natural phenomena, and social interactions and functions.

Cognitive development is essential for daily functioning and success across a range of educational and social contexts. Cognitive development refers to the process through which children develop their abilities to think, assimilate, and use information. Cognitive development occurs both internally and externally. First, children use their natural ability to think about their own actions and experiences in the physical and social worlds to create understanding from these experiences. Here, children discover and mentally develop understanding of new concepts just by being in and interacting with their environment. Then, children gain information directly from adults and other children to acquire knowledge that they would not otherwise learn. This learned knowledge originates in the family, community, and culture and requires guidance and instruction from others. The linkage between nurturing early experiences and cognitive development has been strongly confirmed by recent research on the infant's developing brain, thereby stressing the importance of healthy, safe, and supportive environments that foster children's ability to reach their fullest potential.

The Cognition and General Knowledge domain is organized into the following strands and related concepts:

Strand 1: Learning About Mathematical Concepts: Mathematics is a way of describing the world -- a way of thinking, knowing, and problem-solving that is accessible to all children regardless of their prior knowledge and experiences. Spontaneous and planned math experiences that are made meaningful through play facilitate a child's learning of concepts such as numbers and operations, measurement, patterns and relationships, shapes, spatial sense, data collection and analysis, and time and sequence.

Strand 2: Learning About the World: Scientific knowledge, scientific inquiry and exploration come naturally to young children as they ask questions, seek answers, observe, predict, and form conclusions. Children's observations, predictions, explanations, and conclusions, correct or incorrect, form the basis for further exploration and investigation.

Strand 3: Learning about Families and Communities: Learning concepts related to history, geography, economics, and families and communities is crucial in order to nurture children's understanding of themselves and others. Young children's understanding of and ability to participate cooperatively in family and group settings enables children to develop, practice, and apply skills required to be full participants in a democratic society.



Cognition and General Knowledge Strand 1: Learning About Mathematical Concepts

A. Numbers and Operations

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A1. Begin to build understanding of <i>more</i> .	Use gestures to request <i>more</i> in reference to food or play. Show understanding of <i>none</i> , such as being frustrated when her bottle is empty.	During meals, asking child, "Would you like <i>more</i> ?" Using nonverbal communications in response to infant's request (e.g., use a hand gesture consistently as a signal for "more" while saying the word).
A2. Use number words in songs and finger plays with little or no understanding.	Enjoy watching adults sing songs and finger plays that refer to counting or numbers. Imitate rote counting using some names of numbers.	Playing games or singing songs (e.g., "5 Little Monkeys") and reading books that use numbers and counting. Counting "out loud" objects in child's environment.
A3. Build some understanding of quantity.	Recognize some quantities (e.g., sees two blocks and says "two"). Use words to indicate some quantity and comparisons of quantity (e.g., all, some, none, more, less).	When bottle is empty, saying, or using sign language to signify, "all gone." Pairing objects during daily activities (e.g. "One child gets one snack.").
A4. Demonstrate growing understanding of one-to-one matching.	Put pegs in each hole of pegboard during play. Help set the table, matching a napkin with each place setting.	Creating an environment that contains a variety of objects that work together in a one-to-one relationship (e.g., markers and caps, cars and garages, containers with lids).
A5. Begin to count by rote.	Attempt to count during hide-and-seek, skipping some numbers. Count up to four or five from memory (e.g., recites, "one, two, three..."). Actively participate in songs and finger plays involving counting.	Providing opportunities for child to help distribute items to others, giving each person "one" or to find a shoe for each foot. Playing games that involve counting. Modeling counting "out loud" in natural situations.
A6. Begin to associate number concepts, vocabulary, quantities and written numerals in meaningful ways.	Get three apples out of the basket, one for each person by using one-to-one correspondence (e.g., one for me, one for you, one for Toby). Respond to questions about the number of eyes, ears, or hands he has.	Using or creating songs and finger plays that involve counting. Providing an environment that contains objects with naturally occurring numbers and number words, such as clocks, timers, calendars, thermometers, computers, calculators, measuring cups, etc. Talking aloud while doing simple math computations (e.g., number of snacks for the number of children).

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A7. Demonstrate advancing knowledge of numbers and counting.	<p>Apply numbers and counting concepts to daily life (e.g., counts number of children at table).</p> <p>Tell what number comes after a given number when given a running start, (e.g., What comes after 1, 2, 3, 4, 5, ____?).</p>	<p>Encouraging child to make thoughtful predictions and estimates about quantity, size, distance, and time in daily activities by playing guessing games.</p> <p>Providing a variety of objects for child to manipulate and count (e.g., large, soft blocks).</p>
A8. Begin to make use of one-to-one correspondence in counting objects and matching groups of objects.	<p>Count a collection of one to five items and begin to understand that the last counting word tells how many.</p> <p>Begin to identify and label objects using numbers.</p>	<p>Demonstrating to child that numbers have meaning (e.g., age, phone number, street address).</p> <p>Asking child at clean-up time to pick up, using counting skills (e.g., "Clean up five blocks" or "Pick up three yellow items.").</p>
A9. Increase ability to compare numbers of objects using appropriate vocabulary (e.g., more, less, greater than, fewer, equal to, same).	<p>Explain that one child has more cookies than another when it is obvious that one collection has more than the other.</p> <p>Count two groups of blocks, noting whether one group has more, fewer, or the same number of blocks as the other.</p>	<p>Using comparison words in natural conversation and planned activities.</p> <p>Demonstrating, explaining, and engaging child in activities that show "more," "less," "same." Always use concepts correctly for "fewer" (countable number, such as blocks) and "less" (amount, such as milk remaining in the glass).</p>
A10. Develop increasing ability to count in sequence and to use one-to-one correspondence.	<p>Gradually increase the ability to count up to 10, and later to count beyond 10.</p> <p>Gradually increase the ability to count beyond 10, but not necessarily in the correct order.</p>	<p>Playing games that include counting and/or matching one-to-one (e.g., card games in which an equal number of cards is given each player).</p> <p>Providing many daily opportunities to count objects (and see their corresponding number) in the environment.</p>
A11. Show increased curiosity and interest in numbers and counting as a means for solving problems and determining quantity.	<p>Tell you a sign has the number 4, the same as her age.</p> <p>While playing a board game, say, "Five jumps!" when spinner lands on the numeral "5."</p> <p>Begin to understand that "one" item added to "one" more item makes two, gradually increasing the numbers used up to a sum of "4" and later begins to understand that if "1" is taken away from "2," the number is reduced to "1."</p>	<p>Providing number/numeral materials in child's environment (e.g., magnetic numerals) and modeling using math and numerals (e.g., paying bills).</p> <p>Providing play opportunities for child to use numbers and counting (e.g., play grocery store).</p> <p>Reading stories and singing songs in which objects are taken away, such as "Ten in a Bed."</p>

Cognition and General Knowledge Strand 1: Learning About Mathematical Concepts

B. Measurement

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B1. Explore objects in their environment.	<p>Reach and grab things.</p> <p>Touch and mouth everything.</p> <p>Play with toys and objects with different sizes and shapes.</p>	<p>Providing an environment rich in child-appropriate learning materials and math manipulatives of various sizes and shapes.</p>
B2. Show some awareness of the relative size of objects.	<p>Nest up to five cups, with assistance.</p>	<p>Providing child with toys that have incremental sizes (e.g., nesting cups, stackable rings).</p>
B3. Connect mathematical language to measurement concepts.	<p>Point to a dog and say, "Big dog."</p> <p>Notice another child has more (crackers, cheerios).</p> <p>Say, "More milk."</p>	<p>Modeling vocabulary when talking about attributes and characteristics of objects in the environment.</p> <p>Allowing child freedom to play with the materials with a minimum of adult interference.</p>
B4. Explore the concept of <i>volume</i> .	<p>Fill and empty containers (e.g., with sand or water) under adult supervision.</p>	<p>Providing sand and water play, giving child opportunities to pour, fill, scoop, weigh, and dump to develop an understanding of volume, under adult supervision.</p>

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B. Measurement

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B5. Show some understanding of the concept of measurement	<p>Use size words, such as “big,” “little,” and “many,” appropriately.</p> <p>Understand comparison words (e.g., little/big).</p> <p>Look at two objects and identify which one is bigger or smaller.</p>	<p>Using comparison words when playing with big and little toys.</p> <p>Demonstrating, explaining, and engaging child in comparing objects’ size, shape, and other characteristics (e.g., explore how a rose bush is different from a tree).</p>
B6. Explore measuring tools (e.g., measuring cup, ruler, scale).	<p>Play with measuring tools (e.g., measuring cups), pretending to measure.</p> <p>Fill and empty measuring containers (e.g., with sand or water) under adult supervision.</p>	<p>Charting child’s changes in height and weight.</p> <p>Providing opportunities for child to measure such as putting measuring cups in the bath tub or sandbox.</p>
B7. Describe physical objects in terms of relative size (e.g., big, little, small, tall, short, long, heavy, light).	<p>Gradually develop language to describe measured attributes (e.g. big/small, short/tall, fast/slow).</p> <p>Begin to identify longer of two objects.</p> <p>State who has the bigger cookie.</p>	<p>Naturally integrating size concepts during everyday activities (e.g., “Will this container be big enough for the blocks?”).</p> <p>Providing opportunities for child to explore materials with contrasting measurable attributes (e.g., heavy/light, hot/cold, fast/slow, short/tall).</p> <p>Playing measuring games with child (e.g., “Which is bigger?” “Which is smaller?”).</p>
B8. Demonstrate understanding of concepts related to quantity (e.g., many, a lot, full, empty, whole, part, all, none).	<p>Explain that a container is full of water.</p> <p>Count two groups of blocks, noting whether one group has more, fewer, or the same number of blocks as the other.</p>	<p>Engaging with child in conversations about quantity as you interact with materials throughout the day.</p> <p>Talking about concepts related to quantity during everyday activities (e.g., “Your cup is almost full.”).</p>

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B. Measurement

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B9. Use non-standard units of measurement (e.g., hands, books, blocks) to explore the environment.	<p>Begin to use conventional measurement terms (age, month, cup, etc.) without accuracy.</p> <p>Measure the table with blocks, and noting that it is four blocks long.</p> <p>Try to balance the scale by putting various objects on each side.</p>	<p>Demonstrating, explaining, and engaging child in activities that use non-standard measurement (e.g., using handfuls to measure rice; using footsteps to measure distance).</p> <p>Asking child to describe the size and length of people, toys, and objects.</p> <p>Measuring objects with child using non-standard units of measurement (e.g., hands, books, blocks).</p>
B10. Use standard tools (e.g., measuring cups, ruler, scale) to explore and understand the environment.	<p>Use a common measuring stick to compare how long or tall things are.</p> <p>Use measuring cups and spoons during a cooking activity.</p> <p>Use measuring tools at the workbench or water table.</p>	<p>Engaging child in measuring tasks (e.g., measuring ingredients, weighing a pet).</p> <p>Setting up a simple weather station for child to explore weather patterns (e.g., rainfall, snowfall, temperature).</p> <p>Making simple charts of outdoor temperature over a week.</p> <p>Measuring the number of cups of sand needed to fill the smallest and largest dump truck toys.</p> <p>Modeling use of conventional measuring tools and methods in every day situations.</p>
B11. Compare objects based on differences in <i>length, weight, and temperature</i> using appropriate vocabulary.	<p>Sort and/or order objects correctly (e.g., place strings from shortest to longest).</p> <p>Order different people's shoes from smallest to largest.</p> <p>Place three crayons on the table from the shortest to the longest.</p>	<p>Encouraging child to compare the characteristics of materials and arrange them in an order (e.g., from smallest to biggest, shortest to longest, heaviest to lightest, least to most, etc.).</p> <p>Helping child arrange blocks, toys, or objects from smallest to largest or longest to shortest.</p>
B12. Show progress in using standard and non-standard measures for length, capacity, weight, time, and temperature.	<p>Measure the length of a book using both non-standard units and appropriate tools.</p> <p>Measure sand or water using a variety of containers.</p> <p>Incorporate measuring tools into dramatic play (e.g., "We need a cup of flour for these pancakes.").</p>	<p>Demonstrating, explaining, and engaging child in activities that use both standard and non-standard measurement (e.g., using handfuls to measure rice, or a cup; using footsteps to measure distance, or a tape measure).</p> <p>Playing measuring games with child (e.g., "Which is heavier?" "Which is longer?" Which one runs faster? Which is colder?).</p>

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C. Patterns and Relationships

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
C1. Engage in sustained gazing or tracking of object with eyes.	Observe objects in the environment for a brief period of time (e.g., mobile).	Providing child with a stimulating environment. Showing child simple objects and saying the name (e.g., ball, block, book, then two balls, etc. that are of different sizes).
C2. Demonstrate object permanence (i.e., realizes that people or things exist even when out of view).	Look at door where adult was last seen. Be comforted by adult saying he will return later in the day.	Playing peek-a-boo with child. Hiding objects under blankets for child to find.
C3. React to mental images of objects or events.	Clap hands when told aunt and uncle are coming to visit.	Using descriptive language in everyday conversation, to support child's creation of mental images of objects or events.
C4. Show interest in patterns.	Classify everyday objects that go together (e.g., shoe/sock, pencil/paper, comb/brush). Enjoy patterns of rhythm and repetition of familiar voices, sounds, rhymes, and songs in her home language.	Engaging child in matching everyday materials (e.g., socks). Playing songs or reading books with rhythms.
C5. Explore similarities and differences of objects (e.g., color, size, shape, and texture).	Note that two flowers are different sizes or shape or find matching objects in the environment (e.g., stripes, solids). Notice a common attribute and commenting on it (e.g., "These are all round.").	Providing opportunities for child to notice patterns in nature (e.g., types of leaves). Providing a variety of safe materials with which the child can experiment and draw conclusions about their properties.
C6. Understand the relationship between objects, solving simple jigsaw puzzles and matching similar shapes.	Begin to fit pieces in correct openings through trial and error and correctly stack a few nesting cups.	Providing child with toys requiring problem solving with which to play.

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
C7. Recognize, sort, and classify objects by a single characteristic. (e.g., color, size, shape, and texture).	Pick out all the red crayons from the box and announce, "This is how many red crayons we have."	Making simple games using fabric swatches or wallpaper samples for children to match. Labeling the environment so children can put away toys (e.g., dinosaur box, block box).
C8. Continue to understand the relationship between objects.	Begin to point out the differences in objects rather than the similarities. Describe a group of objects according to a common attribute.	Discussing similarities and differences of everyday objects during play. Providing opportunities for child to arrange collections into groupings using different rules that you make up together.
C9. Recognize and copy simple patterns (e.g., sounds, objects, shapes).	Create a necklace from shaped preschool-type beads using a simple pattern on a card or picture (red/blue/green and then red/blue/green). Copy a sound pattern of two claps and a pause, then one clap and a pause.	When stringing beads, asking child to create and then describe patterns ("Oh look. You put a red one and then a blue one and then a red one and a blue one again."). Playing simple clapping games to get child's attention, asking her to repeat your pattern.
C10. Use patterns to predict relationships between objects.	State that the blue shape follows the yellow shape, the triangle follows the square. Predict which shape is missing in a foam board based on its pattern.	Providing a sample pattern using child-safe common objects (e.g., beads, buttons, rocks, bear counters) and asking child to describe the pattern. Involving child in predicting patterns (e.g., when lining up children by starting the line with a boy, a girl; a boy, a girl. Ask the children to predict who would come next.).
C11. Create original patterns using a variety of materials according to one or more attributes (e.g., color, size, shape).	Make patterns in the sand with her fingers and tracks with toy cars. Construct a symmetrical design with pattern blocks.	Building on the child's understanding of patterning by making changes and additions in materials (e.g., varying the number of objects, the types of characteristics, and the degree of variation).

Cognition and General Knowledge Strand 1: Learning About Mathematical Concepts

D. Shapes

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
D1. Explore geometric shapes using their hands, eyes, and mind.	Mouth, shake, bang, drop, or throw shape toys.	Providing safe play and art materials that have different shapes (e.g., circles, squares, triangles).
D2. Play with shape toys, though often will not match correctly.	<p>Attempt to place the square beanbag in the round hole.</p> <p>Try various shapes in a shape-sorting toy until the shape finally fits and later place circle and square in form board correctly.</p>	<p>Engaging child with toys or games that involve matching shapes.</p> <p>Providing child with toys that involve shapes (e.g., foam shape boards) or common household objects that require matching (e.g., peanut butter jar to correct lid).</p>
D3. Identify simple objects by their shape.	<p>Point to a cracker that is round.</p> <p>Place wooden blocks the correct shelf by matching the shape of the block to the paper shape on the shelf.</p>	<p>Using shape words in daily life (e.g., "Let's cut the cornbread into squares" and then later, "I like triangles, too! How would I make cornbread triangles?").</p> <p>Providing play dough or other modeling dough frequently to give experience in changing shapes.</p>
D4. Recognize simple shapes (e.g., circle, triangle, rectangle, and square).	Locate individual shapes in pictures composed of overlapping shapes.	<p>Playing games that involve matching shapes, gradually increasing level of difficulty.</p> <p>Singing songs and reading books with child about shapes.</p>

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
D5. Use mathematical language to describe shapes (e.g., circle, triangle, rectangle, and square) and their relative parts and attributes.	<p>Follow fingers along the sides of a triangle and say it has three sides.</p> <p>Identify geometric shapes in the world around them (e.g., during neighborhood walk, commenting that the windows in a house are “rectangles”).</p>	<p>Identifying the features of shapes when child plays with them.</p> <p>Introducing new shapes in block play and providing experience in creating shapes by dividing dough or pieces of cheese (e.g., cut a cheese square to make two triangles or use variable shapes of cookie cutters to make cookies for snack).</p>
D6. Recognize, name, and sort simple shapes (e.g., circle, triangle, rectangle, and square).	<p>Find all the triangles that are the same size.</p> <p>Place circle, square, and triangle in the correct hole in a shape sorter.</p> <p>Sort shape blocks correctly.</p>	<p>Providing child with two-dimensional shapes in a variety of sizes for child to match.</p> <p>Asking child, “Pick up all of the shapes that are triangles.”</p> <p>Having child order shapes from smallest to largest with fewer than five items.</p>
D7. Recognize three-dimensional shapes (e.g., cylinders, spheres, cones) through everyday experiences.	<p>Match simple three-dimensional shapes with objects found in everyday play (e.g., playground cone and ice cream cone).</p>	<p>Introducing child to three-dimensional shapes through everyday experiences with cans (cylinders), balls (spheres), and playground cones or ice cream cones.</p>
D8. Create, build, or draw shapes using a variety of materials.	<p>Put together and take apart shapes to make other shapes.</p> <p>Use two triangles to make a rectangle.</p> <p>Use shapes to create familiar materials (e.g., put a triangle on top of a square to create a house).</p>	<p>Providing a variety of shapes and materials that may be connected and combined to create new shapes.</p> <p>Providing materials for child to create and represent shapes (e.g., paper, pipe cleaners, play dough, scissors, tape, wood).</p>

Cognition and General Knowledge Strand 1: Learning About Mathematical Concepts

E. Spatial Sense

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
E1. Pay attention to what is happening in the environment.	Watch and follow the movement of a mobile over the crib. Follow both horizontal and vertical movements of objects.	Placing a stimulating mobile that plays music over crib for children under 5 months of age and unable to push up on knees. Providing child opportunities to experience different physical positions (e.g., floor time, carrying time).
E2. Demonstrate use of body and materials in space.	Gaze at own hands as they move about. Wave arms in an attempt to touch the dangling toy overhead.	Taking child to places where he can observe and explore the environment. Giving child safe, soft, stimulating toys with which to explore in hands (e.g., soft rattles, large chime balls).
E3. Become aware of own body and personal space during active exploration of physical environment.	Explore spatial relationships by attempting to fit her body in boxes or tunnels. Move toys or her body in different positions such as, "under" or "on top."	Encouraging child to explore spatial relationships through activities and opportunities to move within his environments. Creating an environment that has enough space available to allow the child to create a new environment related to her play.
E4. Explore the size, shape, and spatial arrangement of real objects.	Explore openings and look for items to put in the openings, under adult supervision.	Providing the child with various materials with which to build and explore.
E5. Show understanding of different relationships of objects in space.	Respond with accuracy most of the time when asked to put the blocks "on" the table, or to go "under" the table.	Using position words in a conscious way (e.g., suggesting child puts magazine <i>under</i> the book that is on the table).
E6. Show understanding of several positional words.	Climb to the top of a slide and exclaim, "I am far away from you!" Put hands over her head in response to a recorded movement song.	Providing space and materials for creating landscapes (e.g., train tracks, houses, roadway), maps, and other means with which to apply understanding of directionality, order, and position. Playing games with child that incorporate using and responding to position words (e.g., left/right, first/last, above/below, over/under, top/bottom).
E7. Show increasing understanding of directionality, order and position of objects and words such next to, beside, above, below, under, over, top, bottom.	Put the fork on top of the napkin when asked to do so. Comment that an object is nearer to me and farther from you. Complete an obstacle course that asks the runner to crawl through the tunnel, run behind the swings, run in front of the slide, jump beside the sandbox, and jump on the ramp.	Playing Simon Says using directional words (e.g., next to, beside, above, below, under, over, top, bottom) with bean bags. When traveling, using directional terms (e.g., "We will turn left at the next street.").

Cognition and General Knowledge Strand 1: Learning About Mathematical Concepts

F. Data Collection and Analysis

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
F1. Pay attention to what is happening in the environment.	Show excitement when seeing adult. Look at and reach for toys. Track a moving object.	Providing time daily for child to move freely on the floor in a safe environment. Interacting playfully with child while offering new and different materials to explore.
F2. Gather information through the senses (e.g., mouthing, grasping, reaching).	Turn head toward sounds or voices. Bang utensils, blocks, and toys on the floor or table.	Following child's lead while exploring the environment. Providing objects that invite exploration with multiple senses (e.g., rattle with bright colors and different textures).
F3. Make things happen through use of senses of sight, sound, taste, and touch.	Drop toy and look for it. Shake rattle or press button on interactive book.	Demonstrating and explaining how things can be manipulated to make them different and/or more useful. Providing materials and objects of various textures, shapes, colors, smells, and sounds with which child can play and create a response.
F4. Observe persons or objects in the environment for a brief period of time.	Look at self in the mirror for a brief period without recognizing who it is. Watch animals, new toys, or people with interest.	Showing child self in the mirror of a play toy. Exploring the environment with child and showing interest in objects found and observed.
F5. Begin to explore physical properties of objects and to identify their use.	Explore common substances such as gelatin, water, or fabric. Attempt to imitate use of object observed in use by adults (e.g., puts key in keyhole, pretends to stir ingredients in a bowl).	Providing opportunities for safe observation and exploration (e.g., padded surfaces). Encouraging pretend play that allows child to explore the properties of objects and identify their uses.
F6. Recognize objects as the <i>same</i> and <i>different</i> .	Collect items that have common characteristics (e.g., red blocks, shells, leaves). Separate objects by single feature (e.g., rough or smooth).	Providing opportunities for the child to create and share collections based on her interests. Engaging child in comparing and contrasting materials in the environment.

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
F7. Apply knowledge or experience to a new context.	Help adult create a photo album of family members. Illustrate a recent experience.	Providing opportunities for child to share observations through pictures and words. Providing child with ways to depict experiences, e.g. tag board, markers, sticky notes, cameras with film, and tape recorders.
F8. Demonstrate understanding that physical objects and experiences are quantifiable.	Count the number of pieces of fruit on the plate (even though the counting might not be accurate). Count the number of legs on the table.	Creating an environment that includes natural and purchased materials for counting, comparing relationships. Providing collections of three to five objects (e.g., large buttons (of a safe size), plastic animals, shells, keys) that encourage counting.
F9. Collect and organize data about themselves, their environment, and their experiences.	Collect leaves; sort them by color, shape or size. Make a leaf graph. Use a photo of child to indicate a favorite fruit on a graph.	Helping child represent his/her observations using charts and graphs. Creating an environment that contains various types of collections which are attractively displayed.
F10. Organize and display information by shared attribute or relationship.	Participate in the creation of simple graphs reflecting children's favorite type of pet. Place color samples in order from lightest to darkest.	Making graphs to illustrate comparisons for child. Engaging child in many opportunities to create and understand graphs.
F11. Analyze collected data and generate logical conclusions.	Determine that the class prefers ice cream to cake for dessert. Identify which category has more, fewer, or the same number of objects.	Encouraging child to describe and talk about data collected and analyzed.

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
G1. Develop an understanding of the concept of time as it relates to everyday life (e.g., meals, sleeping).	Show some anticipation for regularly scheduled daily activities.	Maintaining a daily routine. Naming activities in their logical sequence, e.g., "Joey's face is washed after he drinks his juice."
G2. Demonstrate some understanding of when things happen in relation to routines.	Anticipate going outdoors after naptime. Choose new shoes to wear when getting ready for special occasion.	Explaining your daily routine as you perform the activities (e.g., "It's time to go outside, now").
G3. Recall information about the immediate past.	After eating say, "All done!"	Demonstrating, explaining, and giving child routines, talking about what happens before and after.
G4. Show increased knowledge and memory for details and routines.	Begin to make connection between daily sequence of events and what happens "next" (story time, activity time, lunch, nap,...).	Discussing the daily schedule with the child and asking questions such as, "What do we do after lunch?"
G5. Anticipate, remember, and describe daily sequences of events.	Give simple accounts of what happened that day.	Helping the child recognize and describe sequences in daily routines (e.g., we read a book before naptime). Using a picture schedule to help children understand the daily routine.

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
G6. Use words to describe time (e.g., hour, day, week, month, morning, afternoon, night).	<p>Recognize that time can be measured (e.g., in days, hours, minutes).</p> <p>Say, "Yesterday, I went to the store."</p>	<p>Introducing general concepts of time sequences (e.g., wake-up, eat breakfast, brush teeth, get dressed; yesterday-today-tomorrow; morning-afternoon-evening) before discussing specific concepts (e.g., hours and minutes).</p> <p>Reading books that relate to concepts of time and sequence (e.g., <i>Good Night, Moon</i>).</p>
G7. Demonstrate improved understanding of past, present, and future using words such as before, after, now, and then.	<p>Point to the calendar and count through spoken words, gestures, symbols, pictures, and/or signs the number of days until her special event.</p> <p>Begin to use the vocabulary for days of the week and names of the months.</p> <p>Use the future tense to discuss plans.</p>	<p>Providing child with opportunities to play with time keeping materials (e.g., clocks, watches, timers, calendars).</p> <p>Reading aloud from books that have historical content.</p> <p>Examining evidence of change over time in meaningful ways to child (e.g., photographs of himself).</p>
G8. Demonstrate beginning understanding of sequence.	<p>Retell a complex story or event in somewhat sequential order.</p> <p>Recognize the beginning and end of an event (e.g., a song).</p>	<p>Reading books with a predictable story line and sequence of events with child.</p> <p>Demonstrating, explaining, and giving child routines, talking about what happens before and after.</p>
G9. Identify the positions of objects or persons in sequence (e.g., first, second, third, last, before, after).	<p>Say, "I'm first in line. She's second."</p> <p>Respond correctly to directions involving sequence.</p>	<p>Encouraging the child to name which object is first, second, third, etc. in the context of a pattern or sequence of events.</p> <p>Playing games with child that involve following directions in sequence (e.g., Simon Says, Follow the Leader, Hokey Pokey).</p>

Cognition and General Knowledge Strand 2: Learning About the World

A. Scientific Knowledge

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A1. Show interest in surroundings by focusing on faces and objects in close range.	Look at surroundings in a new place. Look briefly at self in mirror. Explore own hands and objects placed in hands.	Facilitating child's safe observation and exploration (e.g., monitoring, providing padded surfaces). Showing child self in the mirror. Providing objects that invite exploration with multiple senses (e.g., rattle with bright colors and different textures).
A2. Recognize and respond to different sights, textures, smells, sounds, and tastes.	Use a variety of actions to explore objects – touch, mouth, smell, shake, bang. Gather information through the senses (e.g., mouthing, grasping, reaching).	Introducing toys with different textures, foods with different smells, and objects that make sounds. Explaining to the child what they are doing...give words to the actions.
A3. Observe and describe characteristics of living things, the weather, and the outdoor environment.	Identify or attempt to name earth's materials (e.g., water, rocks, dirt, leaves). Explore characteristics of certain living things (e.g., touches a pine cone, feeds a fish). Identify weather conditions (e.g., sunny, rainy, windy).	Watching fish and reading stories that include fish and other animals. Providing opportunities for child to play safely with natural materials indoors (e.g., nontoxic plants). Providing opportunities for outdoor play daily.
A4. Build beginning understanding of basic science concepts (e.g., force and motion, gravity, sound, light) through exploration.	Place hand in front of light source to create a shadow. Poke, drop, push, pull, and squeeze objects to see what will happen. Spill milk and say, "uh-oh."	Following child's lead as she explores the environment. Providing physical experiences that integrate child's movements with all of the senses to build science concepts (e.g., shadow play, painting with feet, playground equipment). Talking with child about why objects fall or spill.
A5. Know that living things are made up of different parts (e.g., body parts).	Identify the body parts that correspond with the senses (e.g., participate in "Head, Shoulders, Knees, and Toes," correctly identifying body parts.) Assemble the trunk, branches and leaves correctly when given flannel board pieces of a tree.	Engaging child in finger plays and songs with actions that include body parts and body functions (e.g., "We use our teeth to chew."). Taking child to explore natural environment and pointing out structures of living things (e.g. lion's mane, giraffe's neck, apple stem and asking why (e.g., why the giraffe needs a long neck, etc.).

Cognition and General Knowledge Strand 2: Learning About the World

A. Scientific Knowledge

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A6. Explore characteristics, basic needs, and life cycles of living things.	<p>Explore where animals live through personal observation, watching movies, and looking at pictures (e.g., caves, nests, and burrows).</p> <p>Match animal offspring to their parents.</p> <p>Attempt to care for living plants or pets (e.g., by providing food and water).</p>	<p>Reading books and magazines with child containing photographs of different habitats and landforms.</p> <p>Playing matching games using picture cards with mother and baby animals.</p> <p>Planting bean seeds in a “garden” in a clear jar so the child can observe and describe root development and plant growth.</p>
A7. Discover and describe naturally occurring patterns (e.g., weather phenomena, shells, etc.).	<p>Note that a gray sky means it might rain.</p> <p>Remind a playmate to put on boots because it is muddy outside.</p>	<p>Taking advantage of every day events to talk with child about nature and science (e.g., the changing weather).</p> <p>Introducing child to pictures of natural phenomena involving patterns (e.g., oceans, shells, leaves, animals’ coats).</p>
A8. Show beginning understanding of the interrelationships in earth/space systems.	<p>Anticipate the sequence of daily events (e.g., awake, asleep).</p> <p>Create a shadow and describe how it was created.</p>	<p>Labeling events and routines (e.g., use time words such as today, tomorrow, next, later, long ago).</p> <p>Taking child outside and asking her to find her own shadow. Then ask, “How did you make a shadow?”</p>
A9. Recognize matter in its three forms (i.e., solid, liquid, gas).	<p>Recognize and provide simple descriptions of the states of matter (e.g., “Water is wet.”).</p> <p>Participate in observing and describing the effects of different temperatures on materials.</p>	<p>Engaging child in simple and nutritious cooking projects, demonstrating simple scientific principles (e.g., freezing juice to make popsicles, making jello.).</p> <p>Designing simple science experiments that demonstrate changes in matter (e.g., place crayon bits on hot sidewalk and in a clear cup of ice).</p>
A10. Describe the observable properties of objects using pictures and words (e.g., color, size, shape, texture).	<p>Describe the texture of rocks (e.g., rough, smooth, hard, soft).</p> <p>Note how birds are of many sizes and colors.</p>	<p>Exploring properties of the earth with child as found in her daily environment (e.g., examine rocks, dig in the soil, explore puddles).</p> <p>Identifying birds in the local environment using a guidebook, encouraging child to describe what each bird looks like.</p>
A12. Expand knowledge of and respect for their environment, living creatures, and plant life.	<p>Help to sort cans, bottles, and paper into the proper recycling containers, where available.</p> <p>Explain that turning off water or the lights saves energy.</p>	<p>Setting an example for child by respecting the natural world and living creatures, and discussing why it is important.</p> <p>Using recycled materials to create props for play.</p> <p>Reminding child of the importance of turning off water and lights.</p>

Cognition and General Knowledge Strand 2: Learning About the World

B. Scientific Inquiry and Exploration

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B1. Attend to what is happening in the environment.	Focus on faces and objects in close range. Feel and explore objects.	Providing objects that invite exploration with multiple senses (e.g., rattle with bright colors or high contrasts such as black and white and different textures).
B2. Demonstrate curiosity about the natural environment.	Use more than one sense at one time (e.g., uses sight, touch, taste, and hearing by examining and shaking a toy). Push buttons on toy box, and wait for clown to pop up.	Interacting with the child by mentioning things in the environment, e.g., "See the ball roll!" "Ooh, you made the bell say 'ting, ting, ting!'"
B3. Attend and respond to what is happening in the environment.	Begin to imitate familiar motions such as stirring. Observe objects in the environment for a brief period of time. Cry or fuss if afraid or over stimulated.	Providing opportunities for safe observation and exploration (e.g., padded surfaces). Providing child with opportunities to play and explore the natural world following the child's lead. Recognizing when a child indicates that they have had enough stimulation and need quiet time.
B4. Realize their ability to make things happen.	Bang a block on the floor repeatedly, to hear the sound that it makes. Purposely push buttons on toy box, although sometimes still surprised at the results.	Providing toys and objects that respond to actions of child (e.g., rattles, squeeze toys, cloth toys, soft balls). Providing natural materials that respond to actions (e.g., wooden rattles), when possible.
B5. Enjoy games of repeated hiding and finding.	Smile or laugh after repeatedly finding a toy hidden under a pillow. Initiate a hiding game.	Hiding keys under a cover (cup, blanket) and waiting for infant to find them while giving little hints (e.g., lift cover a little) and repeating as long as it is fun. Playing along by searching for toy and acting surprised upon finding it.
B6. Use senses to observe and explore materials and natural phenomena.	Look at flowers and point out details (e.g., the petals and stem). Listen to the call of a bird and ask an adult to listen as well. Refuse to touch things that are slimy.	Providing materials for a variety of sensory experiences (e.g., sand and water) and asking open-ended questions. Discussing concern for living things. Respecting the child's individual preferences.

Cognition and General Knowledge Strand 2: Learning About the World

B. Scientific Inquiry and Exploration

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B7. Demonstrate increased knowledge and memory for details and routines.	Participate in dramatic play, acting out familiar actions, feeding baby, cooking and eating. Go to sink to wash hands when called for lunch or snack.	Encouraging child to participate in daily routines (e.g., set table for dinner). Modeling routine behaviors (e.g., washing hands before meal).
B8. Ask questions about scientific phenomena.	Ask simple questions about the natural world (e.g., "Where did the rainbow go?"). Notice a bulb grow taller each day, and wondering what the "fat ball" on top will become.	Providing opportunities for child to ask questions about the environment and providing descriptive answers. Talking with child about her observations of scientific phenomena and how to learn more (e.g., books, Internet, educational programs).
B9. Expect specific results when playing with toys and other materials.	Build with a variety of objects and begin to understand about balance, size and weight. Note how some magnets "stick together" while others "push apart," as well as which objects are attracted to or repelled by magnets.	Allowing child to play with safe materials without adult guidance in order to discover causal relationships. Encouraging child to touch magnets to objects in the room, describing what happens.
B10. Provide some explanations for scientific phenomena.	Offer an explanation for why colors mixed together create new colors. Identify objects that influence or affect other objects (e.g., "The food coloring makes the water blue.").	Helping child to find the answers to "why" questions through active exploration and reflection. Providing opportunities for child to engage in cause-effect activities (e.g., freeze water with objects in it, observe how long it takes to melt).
B11. Begin to use simple tools and equipment for investigation.	Work with wheeled vehicles and slopes to find out how they move. Explore materials using a magnet or magnifying glass.	Providing opportunities for child to learn through play (e.g., a sand table/box with measuring cups, and various containers to fill.). Giving magnifying glass to child to explore the environment.
B12. Make comparisons among objects in terms of what they are made of (e.g., clay, cloth, paper, metal) and their physical properties of size, shape, color, weight or texture.	Examine a shell collection and respond to requests such as, "Find some more pink ones" or "Show me a shell that isn't smooth." Compare a variety of fabrics at the collage table such as satin, corduroy, felt, and taffeta.	Exploring properties of objects with child as found in his daily environment (e.g., dig in the soil, explore puddles). Having child sort materials (e.g., shells, fabric samples) by one or more attributes such as softness, shine, thickness, or stiffness/roughness.).

Cognition and General Knowledge Strand 2: Learning About the World

B. Scientific Inquiry and Exploration

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B13. Observe and remark upon changes and cause-effect relationships in the physical world.	Describe, draw, or write about environmental changes (e.g., cutting down trees in her neighborhood to build homes). Use vocabulary that shows recognition of scientific principles to explain why things happen (e.g., uses words such as sink, float, melt, freeze, evaporate or dry up).	Guiding child's efforts to identify, record, and describe changes in the environment. Engaging child in "if – then" questions (e.g., "If I keep pouring water into this cup, what will happen?").
B14. Begin to collect, describe, and record information.	Examine natural materials with magnifying lens, draw pictures of collection, and say what the pictures represent. Tie a large thermometer outside a window and chart the rise and fall of the temperature each day at the same time, with assistance.	Helping child develop records of observations (e.g., drawings, objects, photos) from walks in the neighborhood. Providing opportunities for child to share observations through pictures, words, charts and graphs.
B15. Participate in simple investigations to test observations, discuss and draw conclusions, and form generalizations.	Explore absorption of different materials (paper towel, a piece of cotton cloth netting, wax paper) in shallow dishes of water to see which absorbs more water. Try to sift a variety of materials through a sieve to see what will go through and what will not.	Posing simple challenges with open-ended solutions, then talking about the different solutions. Creating a safe environment where child is encouraged to explore and experiment.
B16. Apply information or experience to a new context.	Try to color yellow crayon over red crayon after learning that mixing red and yellow paint makes orange.	Demonstrating, explaining, and engaging child in activities that recall past events and relate what was learned from them.
B17. Form explanations and communicate scientific information.	Explain that a toy car travels faster when the ramp is higher after several trial-and-error investigations. Offer an explanation for why colors mixed together create new colors.	Inviting child to expand on what she meant by a certain response (e.g., "Tell me more about what you learned."). Inviting child to test his assumptions by experimenting (e.g., "OK, let's see how that turns out.").

Cognition and General Knowledge Strand 3: Learning About Families and Communities

A. History

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A1. Participate in regularly scheduled daily activities.	Develop consistency in sleeping, waking, and eating patterns. Engage in some regular behaviors (e.g., sings or babbles self to sleep). Quiet body when picked up.	Establishing routines for eating, sleeping, diapering and other regular activities. Being consistent in your interactions with child.
A2. Recognize the beginning and end of an event.	Bounce in high chair upon anticipating meal. Clap at the end of a song.	Demonstrating, explaining, and giving child routines, talking about what happens before and after.
A3. Begin to recognize routines and to categorize time intervals.	Anticipate routine interactions (e.g., lifts arms toward adult to be picked up).	Providing a consistent bedtime routine and schedule. Accepting that child may be uncomfortable when routines change and provide preparation and support.
A4. Understand that change is related to time.	Describe ways she has changed since being a baby.	Showing child evidence of change over time in meaningful ways (e.g., photographs). Singing songs and reading books with child that describe plants and animals and how they grow and change over time.
A5. Recount daily events.	Express what he did that day (e.g., "Today we went to the park."). Describe to a familiar adult or child what he saw during an outing.	Making daily plans with child, emphasizing items that are different from the usual routine. Talking with child about what happened during daily activities.

Cognition and General Knowledge Strand 3: Learning About Families and Communities

A. History

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
A6. Order/sequence events and objects.	<p>Retell what happened that day in sequence using appropriate vocabulary (e.g., first, next, last).</p> <p>Place pictures in order from the past to the present.</p>	<p>Providing opportunities for child to retell a story or event in sequence.</p> <p>Creating a timeline with photos in sequence of child's past experiences.</p>
A7. Distinguish between events that happen in the past, present, and future.	<p>Express the difference between past and present using words such as before, after, now, and then.</p> <p>Experiment with general terms related to the elements of time (e.g., "Today we are going to Grandma's.").</p>	<p>Using pictures to talk with child about what might happen in the future and has happened in the past (e.g., use photos of an outing to the park).</p> <p>Engaging child in activities that recall past events (e.g., retell an event that happened yesterday.).</p>
A8. Understand that artifacts reveal information about the past.	<p>Ask questions about artifacts from life in the past.</p> <p>Recognize new and antique vehicles.</p>	<p>Taking child to museums and discussing how artifacts reveal information about the past.</p> <p>Sharing books, toys, photos, and other items belonging to someone in the past.</p>
A9. Engage in storytelling about past experiences.	<p>Take on a role from a specific time, use symbols and props, and act out a story/narrative.</p> <p>Describe past times based on stories, pictures, visits, songs, and music.</p>	<p>Providing puppets and other role-play materials for child to engage in storytelling about the past.</p> <p>Engaging child in describing a past time by looking at family photographs.</p>

Cognition and General Knowledge Strand 3: Learning About Families and Communities

B. Geography

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B1. Develop awareness of body in space.	Explore environment in the presence of adult. Develop awareness of own body (e.g., grabs toes and feet).	Providing opportunities for child to explore his body and environment. Playing interactive games and singing songs that involve child's hands and feet.
B2. Recognize familiar places.	Recognize and express emotions when approaching familiar places with appropriate facial expressions, words, gestures, signs, or other means.	Giving child opportunities to visit new places occasionally. Keeping routine play environment similar.
B3. Recall location of familiar objects.	Pull cover off toy that has been hidden. Know where favorite toys or foods are stored in own home.	Playing games that encourage object permanence (e.g., peek-a-boo, hide and seek). Storing toys and games in same location.
B4. Develop awareness of some characteristics of own geographic region.	Match objects to their usual geographic locations (e.g., stove in the kitchen, bed in the bedroom, tree in the park, boat at the lake).	Narrating what child sees and finds in the environment and helping child become familiar with locations such as sink, table, and bathroom. Incorporating pictures or murals of mountains or other landmarks in child's life.
B5. Use some words to indicate direction, position, and relative location.	Explain where she placed a favorite toy. Use words to describe location of objects in his world.	Playing games that incorporate using and responding to direction and position words (up, over, next to, down, behind, top, bottom).
B6. Identify and describe characteristics of own surroundings and geographic region.	Understand and recognize familiar localities (e.g., home, park, grandparent's house). Say, "It rains/snows here a lot."	Taking child to geographical locations that may be unfamiliar (e.g., parks, mountains, ocean, new neighborhoods). Taking walking trips around the neighborhood, making note of geographic features and landmarks.

Cognition and General Knowledge Strand 3: Learning About Families and Communities

B. Geography

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
B7. Demonstrate beginning knowledge of the relationship between people, places, and regions.	Understand that there are different places that people live. Comment, after hearing a story, that children who live in Alaska need warm winter coats.	Providing opportunities for child to explore other places that people live (e.g., books, magazines, documentary films). Reading aloud books about children living in different climates and discussing how their food, clothing, and houses are different.
B8. Identify common geographic tools.	Show interest in investigating geography tools (e.g., map, compass, globe). Recognize common landmarks on a map (e.g., roads, lake).	Demonstrating and explaining the use of maps and globes in the presence of child. Giving opportunity to use toys or drawings to represent where home is in relationship to school or a geographic landmark.
B9. Understand and use direction and position words to describe and compare location and spatial relationships.	Talk about location using appropriate vocabulary (e.g., near/far, over/under, next to).	When traveling, using directional terms to note how one reaches a familiar locality (e.g., "We will turn left at the next street to go home.").
B10. Create representations of locations and space during play.	Use blocks to build a town with houses, stores, a dentist's office, and police station and comment that the people can buy food from the store. Drive toy cars on roads made from blocks.	Playing with child, creating situations related to travel (e.g., take "trips" on a bus or plane, use road maps and pictures of different places she has been). Providing materials with representations of roads, bodies of water, public buildings, etc.
B11. Use labels and symbols that show enhanced understanding of geographic concepts.	Name street, neighborhood, city or town where she lives. Represent simple objects through drawings, movement, and three-dimensional constructions.	Taking child for walks around the neighborhood and pointing out signs and landmarks that indicate locations. Drawing simple maps and directions that can be followed around the home or yard to find objects.

Cognition and General Knowledge Strand 3: Learning About Families and Communities

C. Economics

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
C1. Depend on others to provide for wants and needs.	Anticipate feeding on seeing breast, bottle, or food. Communicate needs with vocalizations and gestures.	Establishing a regular feeding schedule. Consistently and promptly responding to child's needs for comfort and reassurance.
C2. Develop an emerging sense of the meaning of the presence or absence of valued resources such as food or toys.	Understand that he cannot have another cracker because they are all gone. Recognize and use objects for trade during play, with assistance.	Providing toys that can be played with by two or more children at one time to promote sharing. Providing opportunities for child to make "trades" (e.g., trading two markers for a box of crayons).
C3. Make choices.	Want to do favorite activities over and over again. Insist on some choices (e.g., what to wear, completing a project).	Talking with child about his favorite activities using open-ended questions (e.g., "How did you do that? Tell me more."). Providing multiple areas of the room (e.g., blocks, dramatic play, table toys) from which child can choose to play.
C4. Develop awareness of jobs and what is required to perform them.	Talk about what she wants to be when she grows up. Participate in performing chores at home or classroom.	Reading aloud books about different types of occupations and providing props and dress-up clothes for child to play different roles (both male and female). Visiting people at work in the community to talk with them about their jobs.
C5. Demonstrate awareness of money being needed to purchase goods and services.	Play store or restaurant with play or real money, receipts, credit cards, telephones. Demonstrate understanding that coins of different sizes and colors have different names.	Providing play opportunities for child to purchase things in dramatic play (e.g., grocery store, bank, post office, shoe store). Using the names of coins and currency, demonstrating and explaining both their real and relative value.
C6. Identify tools (including technology) used at home, school, and work.	Use accurate vocabulary to identify technology (e.g., camera, computer, television) and tools. Match tools to job (e.g., shovel and construction).	Modeling using technology constructively and responsibly in daily living (e.g., use the computer to check the weather forecast). Providing dress-up clothing and tools to support role playing a worker in an occupation familiar to the child.
C7. Develop awareness of economic concepts, including jobs, money, and tools.	Use play money or other exchange items, when pretending to buy and trade. Know and discuss the origin of some common products (e.g., produce is grown by farmers and then purchased at the grocery store).	Providing child with play materials that have economic uses (e.g., cash registers, wallets, purses, checkbooks, credit cards, receipts) for dramatic play. Reading aloud to child books about products that are made in different parts of the world.

Cognition and General Knowledge Strand 3: Learning About Families and Communities D. Families and Communities

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
D1. Engage with familiar adults.	<p>Begin to coo or smile when being given attention.</p> <p>Fuss or cry to gain attention of familiar adults.</p> <p>Respond to familiar words such as bottle, blanket, teddy bear, etc.</p>	<p>Spending warm, nurturing time with child, engaging in eye contact and using gentle touch.</p> <p>Being dependable and letting child know he can count on you.</p>
D2. Demonstrate a beginning understanding of family/non-family.	<p>Recognize family members.</p> <p>Cry inconsolably when left with a new or unfamiliar person.</p> <p>Demonstrate relief when the parent/guardian returns after being away for a while.</p>	<p>Creating a baby-proof family album that child can explore.</p> <p>Providing opportunities for child to interact with familiar and trustworthy adults, be consistent and return when promised.</p> <p>Having parents bring an object from home that carries the scent of something at home.</p>
D3. Develop beginning understanding of human interdependence.	<p>Seek assistance from adult to solve a problem.</p> <p>Participate in routines with adults and other children.</p>	<p>Positively acknowledging when child tries to solve a problem independently.</p> <p>Demonstrating, explaining, and providing opportunities for child to interact with other children and adults who are in the room.</p>
D4. Expand relationships.	<p>Participate in simple parallel play with other children.</p> <p>Include peers in play, referring to them by name.</p>	<p>Providing opportunities for child to interact with various children and adults who are in the room.</p> <p>Providing multicultural materials and opportunities for child to play in diverse environments with other children (e.g., play group, park, friend's home).</p>
D5. Understand social customs and create humor by pretending to violate the customs.	<p>Purposefully perform an incongruous act (e.g., put socks on hands instead of feet or try to ride in a toy truck.).</p> <p>Attempt to do things the "wrong" way to enjoy adults' reactions (e.g., pretend to eat toy or pretend to perform a forbidden act).</p>	<p>Pretending to be "shocked" and "surprised" (feigning surprise with a smile or "twinkle-in-the-eye" that indicates, "We're just playing, and this isn't real.").</p> <p>Joining the pretense by accepting the object substitution and extending it a bit further (e.g., "Oh, let's eat the cars," or "Let's play like we're going to take Daddy's cookie.").</p>
D6. Identify personal characteristics, including gender and family composition.	<p>Use gender- and role-specific vocabulary (e.g., boy, girl, male, female, mother, father).</p> <p>Begin to identify self as a member of a family or group.</p>	<p>Using gender- and role-specific vocabulary naturally during daily conversations.</p> <p>Asking child, "Who is this?" when referring to a member of his family.</p>

Cognition and General Knowledge Strand 3: Learning About Families and Communities D. Families and Communities

Indicators Children Are Learning To.....	Examples You May Observe the Child....	Strategies You Can Help/Support By.....
D7. Recognize ways in which people are alike and different.	<p>Note that her grandparents are from a different country and speak a different language.</p> <p>Show respect for similarities and differences (e.g., does not laugh at somebody who is different).</p>	<p>Inviting others to share their culture and traditions with child, recognizing both similarities and differences.</p> <p>Choosing books, music, activities, and children's shows that celebrate diverse cultures.</p>
D8. Develop understanding of individual, family, culture, and community.	<p>Make the connection that he is both a member of a family and a member of other groups (e.g., a classroom community).</p> <p>Recognize that people have different communities (e.g., family, neighborhood, school, faith-based community, job).</p>	<p>Displaying photos of child and other family members at child's eye level.</p> <p>Using group time (e.g., family dinner, circle time) to share stories about different communities.</p>
D9. Exhibit positive citizenship behaviors such as sharing, taking turns, following rules, and taking responsibility for chores.	<p>Verbalize that hitting other people is against the rules and learn to wait for turn.</p> <p>Assist with responsibilities for property shared with others (e.g., watering plants).</p>	<p>Discussing with child how rules/standards protect everyone's rights and help to ensure that everybody is safe.</p> <p>Providing opportunities for child to take responsibilities that last more than one day (e.g., setting out napkins for snack time).</p>
D10. Respect differences among people, such as gender, race, special needs, culture, language, and family structures.	<p>Develop an understanding of own and others' cultural or religious holidays.</p> <p>Enjoy learning about other children's cultures through conversations, dramatic play, interactions, and items from home.</p>	<p>Demonstrating and explaining characteristics child has that represent child's cultural background.</p> <p>Choosing books, music, and activities that celebrate diverse cultures and inviting families to share aloud their cultures or traditions with the class.</p>
D11. Exhibit enhanced positive citizenship behaviors.	<p>Participate in creating rules for a game or activity.</p> <p>Cooperate with others in a joint activity.</p> <p>Use polite manners when asking permission to do something.</p>	<p>Including child in the development of rules to promote interdependence and understanding of the rules.</p> <p>Encouraging child to take responsibility for her own social problem solving and for the consequences that occur as a result.</p> <p>Demonstrating and discussing public manners (e.g., asking permission to touch things, saying thank you and goodbye).</p>